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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,489	07/18/2003	Robert Louis Cobene II	100110643	2048

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EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,489	COBENE, ROBERT LOUIS	
	Examiner	Art Unit	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) *1-25 and 36-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-29 and 32-35* is/are rejected.

7)☐ Claim(s) *30 and 31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/18/03, 2/22/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, Species I (claims 26-35) in the reply filed on 8/25/05 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application could be performed without serious burden. This is not found persuasive because the restriction as set forth is proper, and it was noted the search for Group I is not required for Group II, etc.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 26-29, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka (U.S. Patent 6,024,525) in view of Boss (U.S. Pre-Grant Publication 2001/0019691).

Yamanaka discloses a method of binding a plurality of sheets to form a book-like structure using a clamping apparatus. Yamanaka teaches the method comprises providing an assembly of plural sheets (307 of Figure 2A), contacting a hot melt adhesive sheet (T of Figure 1) to a spine surface of the assembly of plural sheets wherein at least one end portion of the sheet protrudes past the spine surface and forms an angle with a plane surface of at least one sheet of

the assembly of plural sheets, providing a pair of translating clamping jaws comprising a press (730 of Figure 1) and a clamping body (702 and 703 of Figure 1), displacing the clamping jaws a distance greater than the thickness of the assembly of plural sheets, translating a platen (701 of Figure 1) to contact the hot melt adhesive sheet on the spine surface, translating the clamping jaws to apply pressure to the planar surface of the assembly of plural sheets such that the protruding end portion of the hot melt adhesive sheet is between the clamping jaws and the assembly of plural sheets, and then, applying heat to the clamping bodies to melt the hot melt adhesive sheet and form the book-like structure after cooling (Column 4, lines 51-67 and Column 5, lines 41-53). Yamanaka is silent as to including within the clamping jaws (e.g. between the clamping body and press) an active cooling member. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include within the clamping jaws (e.g. between the clamping body and press) taught by Yamanaka an active cooling member such as an actively cooled heat sink as was known in the art as by Boss to allow rapid heating and cooling of the assembly, and thus, decrease the time required for binding.

Boss discloses a method of binding a plurality of sheets to form a book-like structure using a clamping apparatus. Boss teaches the method comprises providing an assembly of plural sheets (14 of Figure 2) including an adhesive portion along the spine and planar surface of the assembly (12 of Figure 2), providing a clamping jaw (22 of Figure 2) comprising a press (26 of Figure 2), an actively cooled heat sink (30 of Figure 2), and a clamping body (28 of Figure 2), displacing the clamping jaw at a distance greater than the thickness of the assembly of plural sheets, translating the clamping jaw to apply pressure to the planar surface of the assembly of plural sheets, applying heat to the clamping body to melt the adhesive, and then withdrawing

heat from the assembly of plural sheets and the clamping body through the actively cooled heat sink to form the book-like structure (Figure 2 and Paragraph 17). Boss teaches including the actively cooled heat sink within the clamping jaw allows rapid heating and cooling of the assembly of plural sheets and clamping body (Paragraph 17).

Regarding the limitation of removing heat to below the glass transition temperature, it is noted cooling is performed such that the book-like structure is dimensionally stable, i.e. the adhesive is hardened, such that it appears this limitation is met. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the amount of heat removed as a function of the dimensional stability of the book-like structure as doing so would have required nothing more than ordinary skill and routine experimentation.

Regarding claim 35, Yamanaka does not specifically disclose contacting the platens and clamping jaws with the hot melt adhesive sheet simultaneously. However, the apparatus of Yamanaka is capable of doing so such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Yamanaka as modified by Boss contacting the platen and clamping jaws with the hot melt adhesive sheet simultaneously as only the expected results would be achieved.

4. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka and Boss as applied to claims 26-29, 34 and 35 above, and further in view of Kuramoto et al. (U.S. Pre-Grant Publication 2002/00664437).

Yamanaka and Boss as applied above teach all of the limitations in claims 32 and 33 except for a teaching of tacking the hot melt adhesive sheet to the spine of the assembly of plural sheets prior to bonding with the clamping apparatus. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamanaka as modified by Boss to include a step of tacking the hot melt adhesive sheet to the spine of the assembly of plural sheets to prevent the hot melt adhesive sheet from displacing during bonding as was known in the art and shown for example by Kuramoto et al.

Kuramoto et al. disclose a method of binding a plurality of sheets to form a book-like structure using a clamping apparatus. Kuramoto et al. teach the method comprises providing an assembly of plural sheets, contacting a hot melt adhesive sheet to a spine surface of the assembly of plural sheets, softening the hot melt adhesive sheet at discrete points to tack the hot melt adhesive sheet to the spine to prevent displacement of the hot melt adhesive sheet during subsequent processing steps, and then bonding the hot melt adhesive sheet to the spine using a clamping apparatus including an active cooling means to form the book-like structure (Paragraphs 47, 49, and 50).

Regarding the limitation of the softening heat applied being above the glass transition temperature, it is noted heating is performed to soften the hot melt adhesive sheet such that it appears this limitation is met. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the amount of

softening heat applied as a function of the amount of tacking desired to prevent the hot melt adhesive sheet from becoming displaced as doing so would have required nothing more than ordinary skill and routine experimentation.

Allowable Subject Matter

5. Claims 30 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest a method of binding a plurality of sheets to form a book-like structure using the claimed clamping apparatus wherein the hot melt adhesive sheet is softened above its glass transition temperature prior to contacting the spine surface of the assembly of plural sheets.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John L. Goff

JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300